

### REMARKS

Claims 4-6 stand indicated allowable if rewritten in independent form including all of the limitation of the base claim and any intervening claims. Claim 11 stand objected to. Claims 1-3, 10-11, and 18 stand rejected under 35 USC §103(a) as being unpatentable over Tegethoff, U.S. patent 5,937,154 in view of Shen et al., U.S. patent 6,336,195. Claims 7-9 and 12-17 stand rejected under 35 USC §103(a) as being unpatentable over Tegethoff, U.S. patent 5,937,154 in view of Shen et al., U.S. patent 6,336,195 and further in view of Swoboda et al., U.S. patent 6,647,511.

Indicated allowable claim 4 has been rewritten in independent form and dependent claims 2-3 and 5-11 have been amended to depend from the indicated allowable claim 4. Each of the independent claims 12 and 18 have been amended to more clearly state the invention and to include the subject matter of indicated allowable claim 4. Thus, each of the claims 2-18 is believed to stand allowable and in condition for allowance.

Independent claim 1 has been amended to more clearly state the invention. Reconsideration and allowance of claims 1, as amended, is respectfully requested.

Tegethoff, U.S. patent 5,937,154 discloses a manufacturing test system and method for testing a computing system under test, which includes a computing device comprising internal emulation debug hardware and an emulation debug port through which the debug hardware is controlled. Manufacturing-level microprogram based functional tests are executed under the control of the internal emulation debug

hardware of the computing device. A computing system probe applies the microprogram based functional test to the internal emulation debug hardware of the computing device via the emulation debug port. The manufacturing-level microprogram based functional test may be executed during at any level of computing device integration including the wafer, package, board, multi-chip module and system levels.

Shen et al., U.S. patent 6,336,195 discloses a computer-implemented method for debugging keyboard basic input/output system (KB-BIOS) in a development notebook computing system, a serial PS/2 port, that is connected to a KB-BIOS processor and that serves as a communications channel, of the development notebook computing system is coupled to a host computer so as to establish communication between the KB-BIOS and the host computer. Thereafter, a debug command is sent from the host computer to the development notebook computing system via the serial PS/2 port. Subsequently, at the development notebook computing system, the debug command sent by the host computer via the serial PS/2 port is directed to the KB-BIOS processor so as to enable the latter to execute the debug command according to program instructions in a debug engine module that resides in a memory of the KB-BIOS, and to send debug data associated with the development notebook computing system to the host computer via the serial PS/2 port in response to execution of the debug command. In this way, KB-BIOS debugging of the development notebook computing system can proceed without assistance from system BIOS of the development notebook computing system.

Swoboda et al., U.S. patent 6,647,511 discloses a reconfigurable

datapath (13b), which may be alternatively configured for various debug modes. These modes include a breakpoint mode (20), counter mode (30a-30c), DMA mode (40), and PSA mode (50). Each configuration uses one or more of two bitcell units: a register bitcell unit (60) and a comparator bitcell unit (70). The inputs and interconnections of these bitcell units (60, 70) determine the configuration, and hence the mode, for which they are to be used.

Independent claim 1, as amended, recites a method for implementing coexistence and cooperation between system firmware and debug code in a test system. Independent claim 1, as amended, recites the method including the steps of providing a service processor for storing a system firmware for implementing predefined test functions; providing said service processor coupled to a machine under test for sending system firmware test functions to said machine under test and receiving test data from said machine under test; providing a host computer for storing a bring-up tool for implementing debug test functions; providing said host computer coupled to said service processor for sending bring-up tool debug test functions to said machine under test and receiving test data from said machine under test; starting said system firmware test functions without user intervention on initial power-on routine of the machine under test; receiving a user request with said host computer and notifying said service processor; and starting said bring-up tool debug test functions responsive to said user request.

Applicants respectfully submit that the method of independent claim 1 is patentable over all the references of record, including Tegethoff, Shen et al. and

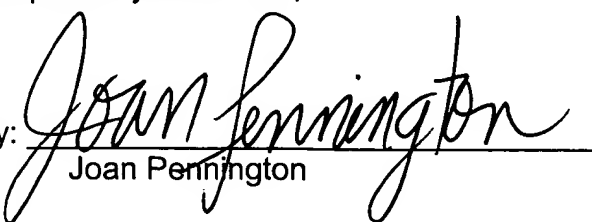
Swoboda et al. The total teachings of Tegethoff, Shen et al. and Swoboda et al. do not suggest the recited step of providing a service processor for storing a system firmware for implementing predefined test functions. Further the references of record, including Tegethoff, Shen et al. and Swoboda et al. do not disclose, nor suggest the recited steps of providing a providing a host computer for storing a bring-up tool for implementing debug test functions; providing said host computer coupled to said service processor for sending bring-up tool debug test functions to said machine under test and receiving test data from said machine under test. Thus, Applicants respectfully submit that independent claim 1 is patentable.

Applicants have reviewed all the art of record, and respectfully submit that the claimed invention is patentable over all the art of record, including the references not relied upon by the Examiner for the rejection of the pending claims.

It is believed that the present application is now in condition for allowance and allowance of each of the pending claims 1-18 is respectfully requested. Prompt and favorable reconsideration is respectfully requested.

If the Examiner upon considering this amendment should find that a telephone interview would be helpful in expediting allowance of the present application, the Examiner is respectfully urged to call the applicants' attorney at the number listed below.

Respectfully submitted,

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